

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A honeycomb structure comprising:
a plurality of through channels extending ~~to~~in an axial direction of ~~a~~the honeycomb structure,
porous partition walls separating through channels one another, and
plugging portions; said plugging portion plugging predetermined through channels at one end and the rest of through channels at other end opposite to the plugged end of the predetermined through channels,
wherein a through-hole is formed in at least a part of the plugging portion, and a diameter of the through-hole is 0.2 mm or more, but not more than a value which is ~~smaller between the lesser of~~ 1 mm and 75% of a diameter of an inscribed circle of the through channel, and wherein a sectional area of the through-hole of the plugging portion in the vicinity of an outer peripheral portion of the honeycomb structure is larger than that of the through-hole of the plugging portion in a central portion of the honeycomb structure.
2. (Currently Amended) The honeycomb structure according to claim 1, wherein ~~the~~a diameter of the through-hole is 0.4 mm or more, but not more than a value which is ~~smaller between the lesser of~~ 0.8 mm and 60% of the diameter of the inscribed circle of the through channel.
3. (Canceled)
4. (Original) The honeycomb structure according to claim 1, wherein each sectional area of a through-hole formed in a plugging portion of the honeycomb structure is substantially nonuniform each other.

5. (Original) The honeycomb structure according to claim 1, wherein a sectional shape of the through-hole in a through direction of the through-hole is a tapered shape or a contracted shape.

6. (Original) The honeycomb structure according to claim 1, wherein an oxidation catalyst is carried on at least the plugging portion in which the through-hole is formed, or in the plugging portion in which the through-hole is formed and the vicinity thereof.

7. (Currently Amended) The honeycomb structure according to claim 1 is used as a filter for trapping/collecting/ removing particulate materials included in dust-containing fluids ~~such as an exhaust gas~~ of an internal combustion engine by virtue of filterability of the partition walls.

8. (Currently Amended) The honeycomb structure according to claim 1, wherein a sectional shape of the through channel ~~is any one of~~ comprises a triangular shape, a quadrangular shape, a hexagonal shape, ~~and or~~ a circular shape.

9. (Currently Amended) The honeycomb structure according to claim 1, wherein the honeycomb structure is made of a material ~~containing any one selected from the group consisting of~~ comprising cordierite, silicon carbide, silicon nitride, alumina, mullite, ~~and or~~ LAS as a major crystal phase.

10. (Currently Amended) A method for manufacturing a honeycomb structure comprising a plurality of through channels extending ~~to~~ in an axial direction of ~~a~~ the honeycomb structure, porous partition walls separating through channels one another, and plugging portions; said plugging portion plugging predetermined through channels at one end and the rest of through channels at other end opposite to the plugged end of the predetermined through channels, wherein a through-hole is formed in at least a part of the plugging portion, and a diameter of the through-hole is 0.2 mm or more, but not more than a value which is

smaller between 1 mm and 75% of a diameter of an inscribed circle of the through channel;
said method comprising the steps of:

injecting a ceramic paste forming a plugging portion into predetermined
through channels from one of their end faces; and

subsequently subjecting either the ceramic paste thus injected or a plugging
portion formed from the ceramic paste thus injected to a processing to form a through-hole in
the plugging portion, wherein the processing to form a through-hole in the plugging portion is
to spray a fluid onto the ceramic paste injected.

11. (Canceled)

12. (Currently Amended) The method according to claim ~~11~~ 10, wherein the fluid
to be sprayed to the ceramic paste ~~is any of~~ comprises compressed air, steam, ~~and or~~ or water.

13. (Currently Amended) The method according to claim 10, wherein the
processing to form a through-hole in the plugging portion is to insert a rod-shaped
thermoplastic organic material or a rod-shaped combustible material in ceramic paste, when
or after injecting the ceramic paste forming the plugging portion in the end of the through
channel; and subsequently heat ~~a the~~ resultant honeycomb structure to allow the rod-shaped
thermoplastic organic material to melt to flow out therefrom, or to allow the rod-shaped
combustible material to burn to ~~remove~~ be removed therefrom, so that a through-hole is
formed in the plugging portion.

14. (Currently Amended) The method according to claim 13, wherein the rod-
shaped thermoplastic organic material is a wax material ~~selected from the group consisting of~~
comprising paraffins, or a plastic resin.

15. (Currently Amended) The method according to claim 13, wherein the rod-
shaped combustible material ~~is a wax material selected from the group consisting of~~
comprises paraffins, a plastic resin, or wood.

16. (Original) The method according to claim 10, wherein the processing to form a through-hole in the plugging portion is to press a drill jig including a plurality of protrusions attached to a plate-like base onto the ceramic paste injected to form a through-hole in the plugging portion.

17. (Original) The method according to claim 10, wherein the processing to form a through-hole in the plugging portion is to irradiate a part of the ceramic paste injected with laser to form a through-hole in the plugging portion.

18. (Original) The method for according to claim 17, wherein the through-hole is formed after having formed the plugging portion from a ceramic paste injected.

19. (Currently Amended) ~~The method according to claim 10, further comprising the steps of:~~ A method for manufacturing a honeycomb structure comprising a plurality of through channels extending to an axial direction of a honeycomb structure, porous partition walls separating through channels one another, and plugging portions; said plugging portion plugging predetermined through channels at one end and the rest of through channels at other end opposite to the plugged end of the predetermined through channels, wherein a through-hole is formed in at least a part of the plugging portion, and a diameter of the through-hole is 0.2 mm or more, but not more than a value which is smaller between 1 mm and 75% of a diameter of an inscribed circle of the through channel; said method comprising the steps of:

mixing a melting point lowering component for lowering a melting point of cordierite into solvent to prepare a mixed solution;

attaching the mixed solution to the end of the honeycomb structure of cordierite; and

subsequently calcining the honeycomb structure to increase a thickness of a portion to which the mixed solution has been attached, so that the plugging portion including a through-hole is formed.

20. (Original) The method according to claim 19, further comprising:
forming the plugging portion including the through-hole; and
disposing a reinforced portion densified as compared with a portion other than the end in the end.

21. (Currently Amended) The method according to claim 19, wherein the honeycomb structure to which the mixed solution is to be attached is comprises an unfired dry material, and the solvent of the mixed solution is comprises a water-insoluble or water-soluble organic solvent.

22. (Original) The method according to claim 19, wherein the honeycomb structure to which the mixed solution is to be attached is a pre-calcined calcined material, and the solvent of the mixed solution is water.

23. (Currently Amended) An exhaust gas purification system for trapping/collecting/removing particulate materials containing carbon as a major component included in dust-containing fluids ~~such as an exhaust gas of~~ an internal combustion engine, the system comprising:

a honeycomb structure comprising a plurality of through channels extending to an axial direction of ~~a~~ the honeycomb structure, porous partition walls separating through channels one another, and plugging portions; said plugging portion plugging predetermined through channels at one end and the rest of through channels at other end opposite to the plugged end of the predetermined through channels, wherein a through-hole is formed in at least a part of the plugging portion, and a diameter of the through-hole is 0.2 mm or more, but not more than a value which is smaller between 1 mm and 75% of a diameter of an inscribed circle of the through channel, which is used as a filter for trapping/collecting the particulate materials; and

heating means for burning the particulate materials trapped/collected by the honeycomb structure to regenerate a filtering capacity,

wherein a through-hole in a plugging portion of the honeycomb structure is such a structure that the honeycomb structure is closed by the trapping/collecting and depositing of the particulate materials, that the closed through-hole opens by the burning of the particulate materials by heating at the time of the regeneration, and that at least some of unburnt materials such as ashes deposited in the honeycomb structure are discharged from the honeycomb structure with flow of the dust-containing fluids, when the through-hole opens, and wherein a sectional area of the through-hole of the plugging portion in the vicinity of an outer peripheral portion of the honeycomb structure is larger than that of the through-hole of the plugging portion in a central portion of the honeycomb structure.

24. (Original) The exhaust gas purification system according to claim 23, wherein the heating means is any one of an electric heater, a burner using a gas or liquid fuel, a microwave generation apparatus, and heating means for discharging unburnt fuel components in the exhaust gas of the internal combustion engine and for burning the unburnt fuel components by a catalytic reaction to raise an exhaust gas temperature.